Predicting Accidental Locations of Dhaka-Aricha Highway in Bangladesh using Different Data Mining Techniques

Abstract

Road traffic accident is one of the most leading issues which is concerned in many other countries like Bangladesh. Data mining is considered as a reliable technique to analyze traffic accident record and identify factors that provide severity of an accident. The goal of this research to analyze and build classification model that predict an accidental location in the Dhaka-Aricha highway. So, road accidental data is collected from different highway police stations which keep traffic accident record of every road traffic accident on this road. Then, raw dataset is preprocessed and build a classification model with five data mining classification algorithms named Rotation Forest, NBTree, JRip, Naive Bayes and Ridor that analyze traffic accident records to predict risky accidental locations. After classifying this dataset, accuracies of classifiers are compared and the best outcome is showed among them. This results can be used to prevent road accidents in the areas and overcome the number of accidents on the Dhaka-Aricha highway.
References


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Index Terms

Computer Science Information Systems

Keywords

Road Traffic Accident, Traffic Accident Record, Highway, Classification, Data Mining